Sustainable Development and Energy

Programme Requirements:

**Sustainable Development and Energy - MSc**

- SD5001 (30 credits) **and** SD5004 (15 credits) **and** SD5005 (15 credits) **and** SD5098 (60 credits) **and**
- 60 credits from Optional Modules for MSc Sustainable Development and Energy

**Compulsory modules:**

**SD5001 Interrogating Sustainable Development**

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<th>SCOTCAT Credits:</th>
<th>30</th>
<th>SCQF Level 11</th>
<th>Semester</th>
<th>1</th>
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<td>Academic year:</td>
<td>2018/9</td>
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<td>2.00 pm - 5.00 pm Tue</td>
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This module provides an introduction to sustainable development. First, it introduces the history and application of the concept of sustainable development. Second, there is a series of disciplinary-based lectures that describe the nature and functioning of the social, political, economic and physical systems that combine to create the world that we can observe around us. Specific material will also be presented that links these various aspects together and explores their interactions. In addition, this module will have a short induction component to it during the pre-sessional week of term which has a three-fold purpose: (i) to introduce students to the shape of the degree program at St Andrews, (ii) allow students to explore their existing skill base and identify which skills require further work and (iii) provide a context (in the form of a field trip) within which to start an investigation of what inter-disciplinarity entails.

- **Learning and teaching methods of delivery:** Weekly contact: 1 x 3-hour seminar
- **Assessment pattern:** 2-hour Written Examination = 50%, Coursework = 50%
- **Re-assessment pattern:** 3-hour Written Class Test = 100%
- **Module coordinator:** Dr D A McCauley

**SD5004 Introduction to Global Environmental Change**

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<th>Semester</th>
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<td>2.00 pm - 4.00 pm Mon</td>
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This module provides students of sustainable development with the scientific background to past, present and future climate change and its consequences globally. Topics covered include the functioning of the global climate system on timescales up to multi-millenial (including the responses of ice-sheets, sea-level, ocean circulation, ecosystems and carbon-cycling, soil erosion, and biodiversity) and conservation.

- **Learning and teaching methods of delivery:** Weekly contact: 1 lecture (x 10 weeks), 1 seminar (x 10 weeks)
- **Assessment pattern:** Coursework (including presentation =20%)= 100%
- **Re-assessment pattern:** Coursework = 100%
- **Module coordinator:** Prof D I Benn
- **Module teaching staff:** Team taught
This module has three elements: (i) a series of presentations by academic experts in their chosen field of sustainable development along with structured reflection and further exploration of these various topic areas, (ii) the development and presentation (in groups) of case studies of sustainable development problems and/or exemplars of excellence in sustainable development, and (iii) the completion of two master class review essays in specialised areas of sustainable development. This module is designed to provide you with an ability to reflect critically on the potential and limitations of sustainable development.

Pre-requisite(s): Before taking this module you must take SD5001
Anti-requisite(s): You cannot take this module if you take SD5003

### Learning and teaching methods of delivery:
Weekly contact: 1 lecture, 1 tutorial (x 10 weeks)

### Assessment pattern:
50-minute group presentation = 20%, Coursework = 80%

### Re-assessment pattern:
???-hour Written Examination = 100%

### Module coordinator:
Dr D A McCauley

### Module teaching staff:
Team taught

### SD5098 Advanced study in Sustainable Development

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<td>Available only to students on an MSc programme in Sustainable Development</td>
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<td>12.00 noon - 1.00 pm Tue</td>
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The purpose of this module is to provide experience and training in applied scientific writing and evaluation. This will be assessed via an academic literature review, a policy brief (based on the format and structure of POSTNotes produced by the Parliamentary Office of Science and Technology, Westminster) and a reflection on the process of translating academic review into policy advice. This allows students to apply conceptual considerations and critical evaluation to a real world context using a number of well-established formats that involve synthesis, evaluation and translation of scientific knowledge.

### Pre-requisite(s):
Students must have gained admission to one of the sd msc programmes

### Learning and teaching methods of delivery:
Weekly contact: 1 lecture per fortnight (during semesters 1 and 2), 3 field trips (during semesters 1 and 2)

### Assessment pattern:
Coursework = 100%

### Re-assessment pattern:
New Coursework = 100%

### Module coordinator:
Dr A L Davies

### Module teaching staff:
Dr A Davies, Dr D McCauley, Dr E McLaughlin

Optional modules - see online requirements